



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,101	09/28/2000	Yuji Yamada	7217/62597	9108

7590 02/06/2004

Jay H. Maioli
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, NY 10036

EXAMINER

MICHALSKI, JUSTIN I

ART UNIT	PAPER NUMBER
----------	--------------

2644

8

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,101

Applicant(s)

YAMADA ET AL.

Examiner

Justin Michalski

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 5-7 have been canceled.

Drawings

2. The drawings (Replacement of Figure 8) were received on 11/26/2003. These drawings are accepted.

Claim Rejections - 35 USC § 112

3. Claim 4 recites the limitation "said two sets of left and right correcting filter means" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 4, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuo et al. (US Patent 6,269,166).

Regarding Claim 1, Matsuo et al. discloses an audio processing apparatus (Figure 34) comprising: converting means (amplifiers 58, 59, and filters 54-57) for converting n-channel audio signals supplied from at least one signal source into two-channel output signals (Figure 34 discloses original signal converted into 5 audio signals and converted into left and right inputs to filters 36 and 38); left and right correcting filter means (Filters 36 and 38) to which left and right signals converted by said converting means are respectively supplied, said left and right correcting filter means correcting a difference of a sense of hearing due to a difference between right and left characteristics of a headphone (Matsuo et al. discloses providing a three-dimensional (i.e. difference in right and left) acoustic effect to a listener via a headphone) (Column 1, lines 11-14), wherein an inverse transfer characteristic of the right channel (Filter 38) is superimposed as impulse response data on a time area of the right correcting filter means and an inverse transfer characteristic of the left channel (Filter 36) is superimposed as impulse response data on a time area of the left correcting filter means (Matsuo et al. discloses inverse transfer characteristics of acoustic space paths and filters having coefficients that represent the impulse response of the inverse transfer characteristic) (Column 10, lines 37-43); and an output section connected to outputs of said left and right correcting filter means for supplying a pair of output signals respectively to right and left speaker units of the headphone (Figure 34

discloses outputs of filters 36 and 38 are connected to left and right speakers of headphones).

Regarding Claim 4, Matsuo et al. further discloses the outputs selected from outputs of said two sets of left and right correcting filter means are supplied to said output section (Figure 34, filters 36 and 38 are supplied to output section to connect to headphones 33 and 34) (Figure 16 discloses FIR filter using sets of taps (c1, c2, etc.; i.e. filters which correspond to sets of left and right (Figure 34, references 36 and 38) correcting filter means).

Regarding Claim 8, Matsuo et al. further discloses the audio processing apparatus (Figure 10 corresponding to Figure 34) where one signal source is composed of five positions: left front (signal L); right front (signal R); center front (signal C); left rear (Signal SL); and right rear (Signal SR).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo et al. as applied to claim 1 above in view of Yamada et al. (US Patent 6,614,912).

Regarding Claim 3, Matsuo et al. discloses an apparatus as stated apropos of claim 1 above. Matsuo et al. does not disclose two sets of left and right correcting filters means and characteristic of the two sets set differently. Yamada et al. discloses a device (Figure 1) where a multi channel input audio signal is sent to a pair of headphones. Yamada et al. discloses if two headphones are connected to connectors 31 and 32 of adaptor 10 they could enjoy sounds simultaneously by the headphones with the acoustic image being independent (i.e. set different) of each person (Column 7, lines 32-46). Each headphone includes it's own independent filters as shown in Figure 7 which are set independently of each other. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include two sets filters that can be set differently so multiple users can listen to an audio signals with headphones.

Regarding Claim 3, Yamada et al. further discloses output signals corrected by the one set of left and right correcting filter means are supplied from a first output section to a first headphone, and output signals corrected by the other set of left and right of correcting filter means are supplied from a second output section to a second headphone. (Yamada et al. discloses if two headphones are connected to connectors 31 and 32 of adaptor 10 they could enjoy sounds simultaneously by the headphones with the acoustic image being independent (i.e. set different) of each person) (Column 7, lines 32-46).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

JIM

2

XU MEI
PRIMARY EXAMINER